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ENEMY PRISONER OF WAR AND CIVILIAN INTERNEE RATES FOR
NORTHEAST ASIA AND SOUTHWEST ASIA(U) ARMY SOLDIER
SUPPORT CENTER FORT BENJAHIN HARRISON IN ANALYSI..

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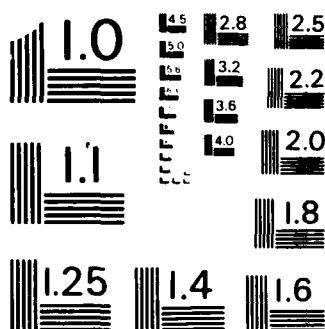
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M L COOK ET AL. APR 86

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SOLDIER SUPPORT CENTER

(2)

ENEMY PRISONER OF WAR AND CIVILIAN INTERNEE RATES

FOR

NORTHEAST ASIA AND SOUTHWEST ASIA

STUDY REPORT

COMBAT DEVELOPMENTS DIRECTORATE

APRIL 1986

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REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT UNCLASSIFIED/UNLIMITED		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			7a. NAME OF MONITORING ORGANIZATION		
6a. NAME OF PERFORMING ORGANIZATION Analysis Division Combat Developments Dir.		6b. OFFICE SYMBOL (If applicable) ATSG-DD	7b. ADDRESS (City, State, and ZIP Code)		
6c. ADDRESS (City, State, and ZIP Code) Commander, USASSC ATTN: ATSG-DD Fort Benjamin Harrison, IN 46216			9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION USA Soldier Support Center		8b. OFFICE SYMBOL (If applicable)	10. SOURCE OF FUNDING NUMBERS		
8c. ADDRESS (City, State, and ZIP Code)		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) (UNCLAS) ENEMY PRISONER OF WAR (EPW)/CIVILIAN INTERNEE (CI) RATE STUDY					
12. PERSONAL AUTHOR(S) Mary Lynn Cook, Robert McConnell, Anna Faye Brandenburg, Dina Philips					
13a. TYPE OF REPORT Final	13b. TIME COVERED FROM TO	14. DATE OF REPORT (Year, Month, Day) April 1986		15. PAGE COUNT 6+Tabs	
16. SUPPLEMENTARY NOTATION Research was conducted under the direction of Major Kenneth W. Hughes, Chief, Analysis Division, Directorate of Combat Developments, USASSC					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Enemy Prisoners of War Rear Battle EPW Factors		
			Civilian Internees NATO EPW/CI Rates		
			EPW Capture Rates Prisoners of War		
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>a. Purpose. This paper documents work by the US Army Soldier Support Center (SSC) which was performed to review and redefine Enemy Prisoner of War (EPW) and Civilian Internee (CI) rates considering NATO forces in a defensive posture.</p> <p>b. Methodology:</p> <p>(1) EPW - Analogous historical sample selected.</p> <p>(2) CI - Factor given in FM 101-10-1 applied to target population.</p> <p>c. Results:</p> <p>(1) A Composite Rate for EPWs (includes rear battle captures).</p> <p>(2) An Audit Trail of historical rates given in FM 101-10-1.</p> <p>(3) Estimated number of CIs.</p>					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL WILT L. HAM, CPT			22b. TELEPHONE (Include Area Code) (317) 542-3815		22c. OFFICE SYMBOL ATSG-DDN

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REMARKS	
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ENEMY PRISONER OF WAR (EPW) /
CIVILIAN INTERNEE (CI)
RATE STUDY
FOR
NORTHEAST ASIA (NEA) AND SOUTHWEST ASIA (SWA) THEATERS

1. Purpose. The purpose of this paper is to document work by the US Army Soldier Support Center (SSC) which was performed in response to taskings by HQ, TRADOC and Deputy Chief of Staff for Operations (DCSOPS) to update/validate EPW/CI rates in the force roundout model, Force Analysis Simulation of Theater Administrative and Logistics Support (FASTALS), for NEA and SWA theaters. Copies of tasking messages are attached at Tab A. This unclassified report documents the study methodology and results, but does not contain the derivation of the estimated number of CIs nor EPWs for SWA. This information is documented in a classified supplement on file at SSC.

2. Background. In September 1985, the SSC completed a study to establish EPW/CI rates for NATO forces. SSC provided the Concepts Analysis Agency (CAA) with the required information on 20 September 1985. On 27 September 1985, the VCSA approved the SSC rates for NATO force planning. On 6 March 1986, the General Officer Steering Committee reaffirmed these rates for use in TAA-93. The current study is in response to follow-on taskings to provide information on other theaters for use in CAA's FASTALS Model during the TAA-93 process. Study results for NEA and SWA were telephonically approved by the Combined Arms Center, Combined Arms Integration Directorate, on 14 April 1986. Rates for use in FASTALS were provided to CAA on 17 April 1986 (see Tab B).

3. Methodology.

a. EPW Rates. SSC's approach to the determination of EPW rates for both NEA and SWA forces was the same as that used in the NATO study. Analogous historical samples were selected. It had been determined during the previous study that there was a lack of information available from existing automated wartime models and war games. Because there are defined scenarios for possible future conflicts in these theaters, relatively small "matched" samples can be used. The better the match, of course, the more precise the resulting estimates. Historical samples were selected based on the recommendations of subject matter experts and further supported by detailed research. To accommodate the requirement to provide rates for use in FASTALS, study results for EPW capture rates are given as the number of prisoners captured per US combat soldier (divisional equivalents) per day. A separate rate is given for each of four combat intensities; i.e., intense, moderate, reduced and reserve.

(1) NEA. The first year of the Korean War, less periods when the combined United Nations (UN) Forces were on the offensive, was determined to be the best available sample for the purpose of this study. The similarities cited in support of the sample as analogous to a future conflict in that area were terrain, avenue of approach, operational art (airLand battle), war of maneuver, guerilla activity, infiltration, rear battle, isolation from supplies, and numerically superior opposing force. (A list of the primary consultants who assisted and the research material used is given in Tab E.) In addition to the selected sample period, two other periods from the Korean War were evaluated to determine the sensitivity of results to the period of the war selected.

(2) SWA. The uniqueness of the projected situation for SWA required the selection of two historical samples. One sample is applicable to an initial portion of the first 180 days FASTALS time period and the second sample is applicable to the remaining portion of the period. Details explaining these two periods cannot be discussed in this unclassified report, but can be reviewed in OPLAN 1008-86. Consultants and research materials used are listed in Tab F.

(a) The analogous sample selected for the initial period was the experience of the Iraqi forces during their invasion of Iran in 1980. The sample period used was 22 September through 31 December 1980. A substantial number of factors in this sample were cited by the subject matter experts consulted to be analogous to the period for which predictions are needed. These include intensity of conflict, terrain/geography, force posture, weapons, and cultural/political/religious factors.

(b) The second period was matched with a historical sample from the Italian campaign in World War II. The capture rate of US prisoners experienced by the Germans during the period 10 September 1944 and 4 April 1945 while participating in the Gothic Line campaign was determined. Analogous features of this sample include terrain, force posture, tactics, isolation from supplies, numerically superior opposing force, and guerilla activity.

b. Civilian Internees.

(1) NEA. For the purpose of force structure planning (i.e., use in FASTALS and TAA-93), zero CIs should be assumed for NEA as for NATO. US forces, fighting as an ally with a friendly sovereign government on that government's own terrain, can assume minimal problems with CIs. (This position has been endorsed by Mr. W. Hays Parks, Chief, International Law, Office of the Judge Advocate General of the Army who is considered to be an expert on

*DCSOPS clarified NEA tasking as given in Tab A message. Per telephone guidance on 20 Jan 86, EPW rates were to be determined for US forces in a defensive posture.

civilian internees.)

(2) SWA

(a) The projected situation for SWA is distinctly different than what is projected for NEA in regard to factors affecting civilian internees. Expected heavy civilian resistance to US forces presence, combined with a government that may be primarily responsible for inciting the resistance, will result in a substantial number of civilian internees requiring internment by US personnel. It is anticipated, however, that many "civilians" desiring to resist US presence will fight with the military and paramilitary forces and therefore, if captured, will be classified as EPWs.

(b) CIs are a function of population size in the geographical area covered by US forces and the hostility level of that population. Therefore, it is not possible for FASTALS to generate the number of CIs expected in this theater. This number must be estimated "off-line", as has been done in this study.

(c) A total number of CIs for the entire 180 day FASTALS period is provided in the study results. This number was determined by estimating the urban and town populations for 1993 in the anticipated area of responsibility (AOR) and then applying the appropriate factor from FM 101-10-1 to that population. Should the build-up of the CIs over the 180 days be desired, the geographical progression of US forces during the period can be plotted, populations identified with the geographical areas, and the FM factor applied to these numbers.

4. Results.

a. NEA.

(1) The following capture rates were experienced historically during the sample period selected; i.e., the time between June 25, 1950 and July 31, 1951 when UN Forces were on the defensive. (Derivations of these rates is given in Tab C).

Intense	.0003
Moderate	.0004
Reduced	.0002
Reserve	.0001

These rates are expressed as the number of EPWs captured per combat soldier per day to meet the requirements of FASTALS. However, because of the method by which the rates were derived, they do include the number of prisoners expected to be captured by the US forces in the rear area as well as by the troops in the main battle operations area.

(2) To consider the impact of the initial invasion of South Korea on the historical EPW rates and also to consider the impact of UN offensive actions (except Inchon) which occurred

during the first thirteen months of conflict, two other sample periods were evaluated. The results of this sensitivity analysis are given in Tab C. In this case, the EPW rates were not significantly changed by varying the sample periods as stated.

(3) For planning purposes, zero CIs should be assumed for NEA. (Reference para 3b(1) above.)

b. SWA

(1) The following capture rates were experienced historically by the Iraqi forces while on the offensive for the first SWA sample.

Intense	.0003
Moderate	.0004
Reduced	.0002
Reserve	.0001

Derivation of these rates requires use of classified data and is not included in this unclassified report.*

(2) The capture rates of US forces historically experienced by the Germans on the defensive during the sample period selected are given below.

Intense	.0003
Moderate	.0004
Reduced	.0002
Reserve	.0001

Derivation of these rates is given in Tab D.

(3) Rates given in para 4b(1) and 4b(2) above are expressed as the number of EPWs captured per combat soldier per day for use in FASTALS. However, incorporated in the rates are the number of enemy prisoners expected to be captured by US forces in the rear area of operations.

(4) Generally, offensive capture rates have been significantly higher than defensive rates. This is not, however, the result found in the two samples taken for SWA. Cultural/religious/political considerations in Iran are primarily responsible for this deviation from expectations.

(5) The expected number of civilian internees for SWA for 180 days is projected to be between 3,500 and 7,750. It is

*Classified portions to supplement this study report are on file at SSC. (Reference "Derivation of EPW/CI Rates for SWA, 25 April 1986".)

expected that a large majority of these CIs will be interned within the first few days. (The number of CIs for SWA can be time phased, if required, by applying the methodology given in para 3b(2)(c).) Actual calculations generating this number result from use of classified data and are not included in this unclassified report.*

c. Historical rates experienced during samples selected are recommended for use without modifications for the purpose of force planning. It should be noted, however, that implicit in this recommendation is the assumption that differences between the selected samples and the specified scenarios do not significantly impact the EPW rates.

d. Because FASTALS considers only Army forces, total EPW workload will not be generated directly from the model. (Specifically, EPWs captured by the Marines will not be in the FASTALS workload estimates.) However, for force planning this additional workload should be considered due to the fact that Army Military Police personnel are responsible for all EPWs captured in SWA.

5. Use of Historical Rates. Much research and time were expended in identifying "matched" historical samples for each theater, and the samples used are considered by subject matter experts to be the best available. However, not unexpectedly, some of the samples match the projected scenarios better than others. The samples selected for NEA, and previously for NATO, are considered very well matched. However, the large number of unknowns for SWA and the number of assumptions necessary to project the scenario make matched sampling much more difficult. It is therefore anticipated that the precision of the SWA estimates is less than that of the other two theaters.

*Classified portions to supplement this study report are on file at 55C. (Reference "Derivation of EPW/CI Rates for SWA, 25 April 1986".)

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TIME

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• U N C L A S S I F I E D •
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TOR=352 1742 TOD=352 174238 MSG NBR-GF48-007C88

SSC FAC JEDA DINFOS EREC DISC DCASMA 21ST OSP
64TH 123RD 327TH TRAMEA DCAA CIDC DRMO READI-GRP
AAFES COMSY DOIM COMMSPT COMSEC SSD 977ND FILECPY M&R

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ZNR UUUUU

R 181602Z DEC 85

FM DA WASHDC //DAHO-FDZ//

TO RUCLAIA/CDRTRADOC FT MONROE VA//ATZD-SE//

INFO RUCLBWA/CDRMPSCHTNGCEN FT MCCLELLAN AL//ATZN-MP-CFD

RUWTFHA/CDRUSACAC FT LEAVENWORTH KS//ATZL-CA//

RUFEEAAA/CDRSSC FT BEN HARRISON IN//ATSG-DDN//

RUEADWD/DIRECTOR US ARMY CONCEPTS ANALYSIS AGENCY

//CSCA-FOS//

RUEADWD/DA WASHDC //DAPE-HRE//

BT

UNCLAS

SUBJECT: ENEMY PRISONER OF WAR AND CIVILIAN INTERNEES (EPW/CI)
FACTORS FOR FASTALS

A. LTR, HQDA, DAPE-MPM-CS, 7 MAR 85, SUBJECT: ENEMY PRISONER OF
WAR (EPW) CAPTURE RATES.

B. MSG, HQDA, DACS-ZB, 031430Z AUG 85, SUBJECT: FORCE STRUCTURE
ALIGNMENT.

1. REFERENCE A TASKED THE US ARMY SOLDIER SUPPORT CENTER (SSC) TO
RESOLVE THE MP FAA ISSUE PERTAINING TO EPW FACTORS FOR THE REAR
BATTLE. ADDITIONALLY, IT WAS REQUESTED THAT THE COMBINED ARMS CEN.

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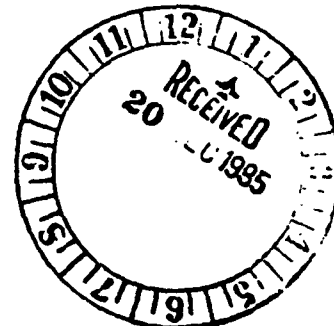
TER PUBLISH THE RESULTS IN FM 101-10-1.

2. REFERENCE B TASKED THE SSC TO REVIEW AND REDEFINE EPW/CI RATES
AS THEY RELATE TO NATO FORCES IN A DEFENSIVE POSTURE.

3. DURING THE RECENT MP FAA ANNUAL REVIEW (11 DEC 85) IT WAS NOTED
THAT THE MP FAA ISSUE (ISSUE 19-03) PERTAINING TO EPW/CI CAPTURE
RATES WAS RESOLVED ONLY AS IT PERTAINS TO THE NATO THEATER. IT WAS
DETERMINED THAT A REALISTIC APPROACH TO THE ISSUE MUST INCLUDE
PLANNING FACTORS FOR ALL THEATERS. CONSEQUENTLY, DIRECTOR, FORCE
PROGRAMS DIRECTED THAT EPW/CI PLANNING FACTORS FOR THE SOUTHWEST
ASIA (SWA) AND NORTHEAST ASIA (NEA) THEATERS BE ALIGNED WITH CURRENT

ROUTINE

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• U N C L A S S I F I E D •
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TAB A

UTINE

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• U N C L A S S I F I E D •
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AIRLAND RATTLE DOCTRINE:

4. REQUEST ACTION BE INITIATED TO VALIDATE CURRENT EPW/CI PLANNING FACTORS FOR SWA AND NEA THEATERS. IT IS FURTHER REQUESTED THAT THE VALIDATED FACTORS BE PROVIDED THIS HQ NLT 5 MAR 86.
5. POC THIS HQ IS MAJ WHITE, DAMO-FDL, AUTOVON 224-0552.

BT

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ROUTINE

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ROUTINE

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(SSC) FAC DMEDA DINFOS EREC DISC DCASMA 21ST OSP
64TH 123RD 327TH TRAMEA DCAA CIDC DRMO READI-GRP
AAFES COMSY DOIM COMMSPT COMSEC SSD 972ND FILECPY M&R

RTTUZYUW RUCLAIA3830 3572256-UUUU--RUFEAAA.
ZNR UUUUU
R 201300Z DEC 85
FM CDR TRADOC FT MONROE VA //ATCD-SE//
TO RUFEAAA/CDR SOLDIER SPTCEN FT BEN HARRISON IN //ATSG-DDN//
INFO RUWTFHA/CDR USACAC FT LEAVENWORTH KS //ATZL-CA//
RUEADWD/HQ DA WASHDC //DAMO-PDZ/DAPE-HRE//
RUCLBWA/COMDT MPSCH FT MCCLELLAN AL //ATZN-MP-CFD//

BT

UNCLAS

QQQQ

SUBJECT: ENEMY PRISONER OF WAR AND CIVILIAN INTERNEES
FACTORS FOR FORCE ANALYSIS SIMULATION OF THEATER
ADMINISTRATION AND LOGISTICS SUPPORT

A. MSG, HQ DA, DAMO-PDZ, 181602Z DEC 85, SAB.

1. REQUEST SSC TAKE THE LEAD IN ACCOMPLISHING THE HQ DA TASKS
IDENTIFIED IN REF A.

2. THE POC IS LTC SMITH, AV 680-3477.

BT

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ROUTINE

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• U N C L A S S I F I E D •
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JOINT MESSAGEFORM

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FROM: CDR SSC FT BEN HARRISON IN //ATSG-DDN//

TO: DIR USACAA BETHESDA MD //CSCA-F0//

INFO DA WASH DC //DAMO-FDZ//

CDR TRADOC FT MONROE VA //ATCD-SE//

COMDT MPSCH FT MCCLELLAN AL //ATZN-MP-Z//

CDR USACAC FT LEAVENWORTH KS //ATZI-CAF-F/ATZL-CAI-S//

CDR THIRD US ARMY FT MCPHERSON GA //AFRD-PM//

CDR INTEL CEN FT HUACHUCA AZ //ATSI-HI//

CDR FORSCOM FT MCPHERSON GA //AFPM-RP//

UNCLAS

SUBJ: ENEMY PRISONER OF WAR AND CIVILIAN INTERNEE (EPW/CI) FACTORS
FOR FORCE ANALYSIS SIMULATION OF THEATER ADMINISTRATIVE AND
LOGISTICS SUPPORT (FASTALS)

A. MSG, HQ DA, DAMO-FDZ, 181602Z DEC 85, SAB.

B. MSG, HQ TRADOC, ATCD-SE, 201300Z DEC 85, SAB.

C. MSG, CAA, CSCA-F0, 171506Z JAN 86, SUBJ: EPW/CI RATES FOR SWA
AND NEA.

1. REFERENCE A IDENTIFIED A HQ DA REQUIREMENT TO VALIDATE EPW/CI
RATES BEING USED IN FASTALS FOR NEA AND SWA. REFERENCE B TASKED THE

DISTR

ATZI-CS

DRAFTER TYPED NAME TITLE OFFICE SYMBOL PHONE

MARY LYNN COOK
ATSG-DDN
X3813

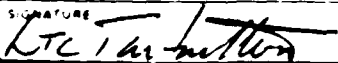
SPECIAL INSTRUCTIONS

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STEPHEN F. DONOVAN, DIR, DCD

AVB77-3760

SIGNATURE



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JOINT MESSAGEFORM

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BTOR	MESSAGE HANDLING INSTRUCTIONS									
NO										
<p>SSC TO ACCOMPLISH THIS ACTION.</p> <p>2. THE NEW POW CAPTURE RATES FOR NEA AND SWA ARE PROVIDED BELOW IN THE FORMAT SPECIFIED BY CONCEPTS ANALYSIS AGENCY IN REFERENCE C. THESE RATES HAVE BEEN REVIEWED BY THE COMBINED ARMS CENTER. DETAILED STUDY METHODOLOGY CAN BE FOUND IN THE FINAL REPORT CURRENTLY BEING WRITTEN BY THE STUDY TEAM.</p> <p>A. NEA.</p> <p>INTENSE .0003</p> <p>MODERATE .0004</p> <p>REDUCED .0002</p> <p>RESERVE .0001</p> <p>B. SWA.</p> <p>INTENSE .0003</p> <p>MODERATE .0004</p> <p>REDUCED .0002</p> <p>RESERVE .0001</p> <p>3. CIVILIAN INTERNEES (CIS).</p> <p>A. SWA. THE NUMBER OF CIS FOR SWA IS A FUNCTION OF BOTH THE SIZE OF THE INDIGENOUS POPULATION OF THE GEOGRAPHICAL AREA OF</p>										
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DD FORM 173/2 (OCR)

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<p>RESPONSIBILITY OF US FORCES AND THE HOSTILITY LEVEL OF THAT POPULATION. THEREFORE, IT IS NECESSARY TO ESTIMATE THE NUMBER OF CIS "OFF-LINE", RATHER THAN BY FASTALS, UNLESS MODIFICATIONS ARE MADE TO THE MODEL. FOR THE TAA-93 PROCESS, THE EXPECTED NUMBER OF CIS FOR THE FIRST 180 DAYS IS PROJECTED TO BE BETWEEN 3,500 AND 3,750.</p> <p>B. NEA. THE SITUATION IN NEA FOR CIS IS SIMILIAR TO THAT FOR NATO. THEREFORE, FOR TAA-93, ZERO CIS SHOULD BE ASSUMED IN NEA.</p> <p>4. IT SHOULD BE NOTED THAT FASTALS CONSIDERS ONLY ARMY FORCES IN THEATER. BECAUSE OF THIS MODEL CHARACTERISTIC, THE NUMBER OF EPWS EXPECTED TO BE CAPTURED BY MARINE GROUND TROOPS WILL NOT BE INCLUDED IN FASTALS WORKLOAD OUTPUT. IT SHOULD ALSO BE NOTED THAT THE ARMY HAS RESPONSIBILITY FOR ALL PRISONERS CAPTURED BY MILITARY FORCES IN SWA.</p> <p>5. POC IS MRS. MARY LYNN COOK, AV 699-3813.</p>											
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PREVIOUS EDITION IS OBSOLETE
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Derivation of EPW Rates for CFA

1. Sample

a. Geographical location: Korea.

b. Period: June 25, 1950 - July 31, 1951 less Inchon Campaign (16 September - 24 November 1950) and other UN counteroffensive actions.

c. Posture: Defensive (UN Forces).

d. Force Size: Varies over sample period.¹

e. No. of prisoners captured: Varies over sample period.¹

f. Intensity of Conflict: Sample period was categorized by combat intensity (Intense, Moderate, Reduced, Reserve) by consulting historian.

2. Calculations. The EPW rates are expressed as the number of EPW's captured per combat soldier per day. They were derived by taking the weighted average of the periodic rates in each level of intensity of combat, except Reserve. No direct Reserve time¹ was found in the sample selected, and the Reserve rate was calculated using the relationship between intensities now in FASTALS. The results are given below:

Intense - .0003
Moderate - .0004
Reduced - .0002
Reserve - .0001

3. Sensitivity Analysis. Using the same methodology as discussed in para 1 and 2 above, two other samples from the Korean War were evaluated to determine EPW rates. The periods used and the resulting rates are given below.

a. June 25, 1950 - July 31, 1951, excluding Inchon.

Intense - .0003
Moderate - .0003
Reduced - .0002
Reserve - .0001

¹ The data elements, UN force strength and number of EPWs captured by period, were not available from only one source. The primary sources were the monograph by the Eighth Army historian, "The Handling of Prisoners of War During the Korean War", and the Black Series on Korea published by the Center for Military History. Gaps were filled from other references or found by interpolation.

November 29, 1950 - July 31, 1951.

Incense - .0002
Moderate - .0003
Reduced - .0002
Reserve - .0000

1. Sample 1. Iraqi at War - II (Source: [illegible])
Derivation of these rates is given in classified report [illegible]
this report which is on file at [illegible].

2. Sample 2.

- a. Geographical location: Gothic Line Offensive.
- b. Period: September 10, 1944 to April 4, 1945 (207 days).
- c. Posture: Defensive (Axis Forces).
- d. Force Size: ¹ 80,000 (Axis forces opposing U.S.) (derived from The Gothic Line¹ and Handbook on German Military²).
- e. EPW Data: 4017³ (U.S.).
- f. Computation of composite rate:

$$\frac{4017}{207} = 19.4058 \text{ EPW's per day}$$

$$\frac{19.4058}{80000} = .0002426$$

g. Computation of intensity rates:

(1) Determination of intensities⁴

	Intense	Moderate	Reduced	Reserve
Sept 10 - 18	9			
Sept 19 - 30		12		
Oct 1 - 31	15			
Oct 1 - Jan 31			17	
Apr 1 - Apr 4	4			
	28	12	17	

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(C) Computations¹

$$\left(\frac{28}{207}\right)X_1 + (1.34)\left(\frac{12}{207}\right)X_1 + (.74)\left(\frac{167}{207}\right)X_1 = .0002426$$

$$.8099516X_1 = .0002426$$

$$X_1 = .000300$$

$$X_2 = .000401$$

$$X_3 = .000222$$

$$X_4 = .000060$$

(D) Rounded to four places:

$$X_1 = .0003$$

$$X_2 = .0004$$

$$X_3 = .0002$$

$$X_4 = .0001$$

¹ The ratios of interest, i.e., 1, 1.5, 2, and 3, were as derived in the previous NEN study and were applied to the ratios used in EXISTAL 1, 1.5, 2, and 3.

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